

**CLAIMS**

- 1        A lighting device including at least a light source (LS) for emitting light rays and  
means for guiding said light rays on a projection plane (PP), characterized in that said  
5        guiding means are formed by a lens (OD) presenting a cylindrical portion (CYL) extending  
along an axis (AX) perpendicular to said projection plane and at least a convex shaped  
surface (CSH) extending at an extremity of said cylindrical portion and adapted to direct a  
portion of the light rays emitted from said light source towards said projection plane.
- 2        A lighting device as claimed in Claim 1, wherein said cylindrical portion has a base  
10        choosen among a circular base, a curve base, a meniscus base, a fresnel base.
- 3        A lighting device as claimed in Claim 1, wherein said lens is shaped such as two  
convex surfaces are extending at both extremities of said cylindrical portion.
- 4        A lighting device as claimed in Claim 1, wherein said convex surface is an  
hemispherical surface symetrical in rotation around said cylindrical portion axis.
- 15        5        A lighting device as claimed in Claim 1, wherein said convex surface is parabolic.
- 6        A lighting device as claimed in Claim 1, said lighting device comprising several light  
emitting diodes for a same lens.
- 7        A lighting device as claimed in Claim 1, wherein said projection plane is a sheet of a  
transparent material adapted to transmit the light by refraction and diffusion.
- 20        8        A lighting device as claimed in Claim 1, wherein said lighting device further includes  
an optical element (GOB) placed beyond the lens with respect to the light source, said optical  
element presenting features drawn line by line in order that said lighting device project a  
signifiant image on said projection plane.